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James E. McGreevey,
Governor



Clifton R. Lacy, M.D.,
Commissioner

NJ Communi-CABLE

NJ Smallpox Vaccination Program Update

The NJDHSS conducted the first phase of its smallpox vaccination program late January to April, 2002 by immunizing volunteer public health and hospital workers throughout New Jersey. Over 600 volunteers were vaccinated, including physicians, nurses, local health officers, law enforcement agents, laboratorians, and epidemiologists. No life-threatening adverse events related to the vaccine have been reported.

Vaccinees will form two teams. The Public Health Response Team, comprised of state and local public health workers and law enforcement officers, will be responsible for investigating and controlling possible or confirmed outbreaks of smallpox. The Hospital Health Care Response Teams, comprised of clinicians and hospital support staff, will be responsible for treating initial victims of smallpox in hospital care settings.



This voluntary vaccination program is part of NJ's smallpox vaccination preparedness and response plans, which have been approved by the federal Centers for Disease Control and Prevention (CDC). The response plan will serve as a blueprint for public health officials, hospital staff, emergency workers and the public in the event of an outbreak of the deadly disease. NJ's smallpox vaccination plan is based on guidance from

the CDC, the NJ Terrorism Advisory Committee (MEDPREP), the Infectious Diseases Society of NJ and the federal Advisory Committee on Immunization Practices (ACIP). It also includes input from the NJ Hospital Association, the departments of Law and Public Safety and Labor, healthcare workers' unions, local health departments and Local Information Network and Communication System (LINCS) agencies, among others.

Smallpox was declared eradicated by the World Health Organization in 1980 after a successful worldwide vaccination program. The virus is now known to exist only in two secure repositories worldwide. However, authorities suspect that virus stores may be in the possession of terrorists who could use it as a weapon.

The vaccine does not contain smallpox, but rather a related, less harmful virus that confers protection against smallpox. The vaccine has potential side effects including fatigue, fever, and body aches. Complications from the vaccine can be severe in rare instances and especially in people with certain conditions. Volunteers were screened carefully to exclude individuals with these conditions.

NJDHSS Communicable Disease Service

- Eddy Bresnitz, MD, MS, State Epidemiologist, Assistant Commissioner
- Janet DeGraaf, MPA, Director, Communicable Disease Service
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The New Jersey Perinatal Hepatitis B Prevention Program Receives Award

By: Nancy Borsuk, RN, MPH—Hepatitis Coordinator, Immunization Program

In January 2003, the New Jersey Department of Health and Senior Services (NJDHSS), Perinatal Hepatitis B Prevention Program, received an “Outstanding Achievement” award from the Centers for Disease Control and Prevention (CDC) at the Hepatitis Coordinators Conference. A 29 percent increase was made in the identification of infants born to hepatitis B surface antigen positive (HBsAg +) women in year 2001 compared with 2000. In 2002, the Program achieved a 22 percent increase in the identification of infants born to HBsAg (+) women and that same year, 407 cases were reported to the NJDHSS. Currently 749 cases are being followed statewide.

Approximately 22,000 infants are born annually in the United States to women who are chronically infected with hepatitis B virus (HBV). In general, perinatal HBV transmission occurs as a result of exposure at birth and can be prevented with appropriate prophylaxis. The perinatal transmission rate for an infected mother to her newborn may be as high as 90 percent depending on the mother’s infectivity status at the time of delivery. It is estimated that 25 percent of infant chronic carriers are at a lifetime risk of death from liver cirrhosis or primary hepatocellular carcinoma. In addition, infants born to HBsAg (+) mothers not infected at birth are at risk of acquiring HBV from subsequent exposure to the mother or other HBsAg (+) family members.

Preventing perinatal hepatitis B infection has been a key component of the Advisory Committee on Immunization Practices (ACIP) and the American Academy of Pediatrics (AAP) hepatitis B vaccine strategy since 1982 when the first vaccine against hepatitis B was implemented in the United States. Significant progress has been made in the United States toward eliminating HBV transmission in children and reducing the risk for HBV in adults. Prior to 1982, an estimated 200,000 – 300,000 persons in the United States were infected annually with HBV, including approximately 20,000 children. In 2001, the number of acutely infected people in the United States declined to approximately 79,000. Despite our progress, about 1.2 million people in the United States have chronic HBV infection, and 5,000 die every year from HBV related liver conditions.

Since 1993, the NJDHSS Immunization Program has

been under a federal initiative to prevent perinatal HBV transmission. The strategy for preventing perinatal HBV infection includes: screening all pregnant women for HBV using the HBsAg test during each pregnancy; ensuring infants born to HBsAg (+) women receive Hepatitis B Immunoglobulin (HBIG) and hepatitis B vaccine within 12 hours of birth, the second dose of hepatitis B vaccine at age 1-2 months and the third dose at 6 months of age, but not before 6 months of age. At 12 months of age these infants should be tested for HBsAg and antibody to the hepatitis B surface antigen (Anti-HBs) to identify infants who have become infected and those requiring revaccination. In addition, the household and sexual partner (s) of the HBV infected woman are at risk of infection and should be serologically screened for infection, and if susceptible, immunized.



In New Jersey, the HBsAg (+) test in a pregnant woman is reportable based on N.J.A.C. 8:57, Subchapter 1. Under this law, the local health department is required to conduct appropriate case follow-up for disease investigation and control which involves tracking vaccine doses, case management and reporting their findings to the state health department. The NJDHSS coordinates the Program on a statewide basis and maintains a perinatal hepatitis B database.

In the 21st century, according to CDC, there are two important challenges for health departments and health care providers - maintaining high screening rates among pregnant women for HBsAg and ensuring that newborn infants receive proper immunoprophylaxis.

The NJDHSS recommends the following:

1. Routine administration of the first dose of hepatitis B vaccine to every newborn before hospital discharge. The birth dose acts as a “safety net” to prevent errors (i.e., if screening for HBsAg is not performed, misordered, misinterpreted, or mistranscribed) that have occurred along the continuum of care. Concerns about thimerosal should no longer be an obstacle since thimerosal has been removed from all pediatric hepatitis B vaccine in the U.S.

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Syphilis Elimination Efforts In New Jersey

By: Laurie Anderson—STD Surveillance Coordinator

Syphilis is a sexually transmitted disease (STD) many thought eradicated. In 2000, infectious syphilis reached its lowest rate since reporting began in 1941 with only 5,979 cases reported in the U.S., with a rate of 2.1 per 100,000. When syphilis reached this low point in 2000, an initiative was begun to eliminate endemic syphilis in the U.S. New Jersey received funds from the Centers for Disease Control and Prevention (CDC) for the Syphilis Elimination Initiative. These funds are distributed to community-based organizations in high-risk communities to reduce the incidence of syphilis.

Syphilis is a genital ulcerative disease with 6,103 people in the U.S. in 2001 diagnosed during the infectious stages and 194 people reported in New Jersey alone. Syphilis is called “the great pretender” as many of its symptoms mimic the symptoms of other diseases and spontaneously resolve in a short period of time. The first stage is characterized by a genital, oral or anal non-painful chancre. The second stage symptoms include a body rash, palmer/plantar rash, alopecia, non-painful lesions on the face or genitals, or condylomata lata. A period of latency usually occurs between the first and second stages and follows the second stage. Pregnant women can also perinatally infect their babies. Long term effects of untreated syphilis include stroke, blindness, brain damage, and death.

In 2001, Essex County was ranked 15th in the United States for the rate of infectious syphilis with 79 cases (10.0 per 100,000). In 2002, 88 cases of infectious syphilis were reported in Essex County, having a rate of 11.1 per 100,000. The largest increase in 2002 in those infected with syphilis occurred in Hudson County. In 2001, Hudson County reported nine cases of infectious syphilis (1.5 per 100,000) and in 2002, 29 cases (4.8 per 100,000).

The affected population was quite disparate between these two areas even though they are neighboring counties. Most of Essex County's patients were

African-American who were infected heterosexually. Hudson County cases were more racially and ethnically mixed, having almost an equal number of white, Hispanic, and African-Americans infected. Those who were white were generally men who had sex with men (MSM) related to New York City, meaning patients were either tested or had partners in New York City. Hudson County was also where the largest increase in those of Hispanic ethnicity was reflected.



To further complicate controlling the spread of the infection, 61% of those infected with infectious syphilis were diagnosed somewhere other than local health department sexually transmitted disease clinics. Previously most patients were seen in local health department STD clinics, making it easier to ensure adequate treatment, give patients information on the disease and ensure their partners would be notified. The fact that syphilis is a disease that mimics the symptoms of other diseases, a patient's symptoms may not be recognized as syphilis. Also, although testing is done, patients may be difficult to locate and may not return for appropriate follow-up.

The NJDHSS STD Program encourages providers to educate themselves on the symptoms of syphilis in order to add their efforts to eliminate syphilis in New Jersey by examining or screening their patients for any sign of syphilis. Further information can be obtained from the NJDHSS or at the web sites for the CDC (www.cdc.gov/nchstp/dstd) or the American Social Health Association (www.ashastd.org).

NJDHSS In the News!

New Jersey Reports Suspected SARS Cases



NJDHSS, in collaboration with the Centers for Disease Control and Prevention (CDC), is investigating four suspected cases of Severe Acute Respiratory Syndrome (SARS) in New Jersey.

The three previous New Jersey individuals had all traveled to Asia, and there have been no reported cases of SARS transmission to people in contact with them. The first New Jersey resident suspected of contracting SARS is fully recovered, the second is recovering at home and the third was discharged from a Pennsylvania hospital and was diagnosed with another illness.

One new case involves an elderly woman who traveled to Asia between March 14 and April 2. The woman developed a cough and was hospitalized overnight in China and was released the following day. She returned to New Jersey on April 11 and has recovered. Family members, who were in contact with the patient, remain healthy.

SARS is a respiratory illness that has recently been reported in Asia, North America, and Europe. SARS, the cause of which has not yet been identified, begins as an influenza-like illness, with such symptoms as rapid onset of high fever, muscle aches, headache, sore throat, dry cough and shortness of breath. X-rays may show pneumonia and other changes. Laboratory tests may show low numbers of white blood cells and platelets. Some affected individuals have experienced respiratory failure requiring mechanical ventilation.

"The emergence of SARS reinforces the importance of aggressive disease surveillance for rapid detection of health threats," said NJDHSS Commissioner Clifton R. Lacy, M.D.

As of April 24, the CDC has reported 213 suspect and 41 probable SARS cases nationwide. Worldwide, updated figures are available at the World Health Organization's website, <http://www.who.int/csr/en/>.

On March 15, NJDHSS received a health alert from the CDC, and immediately transmitted information to hospitals and public health agencies explaining how to identify potential cases and appropriate reporting mechanisms. Health officials in New Jersey have been instructed to immediately report any suspected cases by telephone to both NJDHSS and local health officials. NJDHSS has conducted weekly conference calls with public health officials and hospitals to review the available information and answer questions. The most important measure to prevent SARS transmission is for health care practitioners to identify potential cases and immediately implement infection control practices, including isolation of ill individuals.

Cases of SARS continue to be reported primarily among people who have had direct close contact with an infected person, such as those sharing a household with a SARS patient and healthcare workers who did not use infection control procedures while caring for a SARS patient. In the United States, there is no indication of community transmission at this time.

CDC advises that people planning elective or non-essential travel to mainland China and Hong Kong, Singapore, and Hanoi, Vietnam, may wish to postpone their trips until further notice. At this time CDC is not advising against travel to or from Canada because there is not evidence of widespread community transmission. CDC has developed travel alerts for individuals entering the United States. NJDHSS will maintain close communication with the CDC and New Jersey's public health and health care communities.

A fact sheet on SARS available in Chinese and Vietnamese on the NJDHSS website at <http://www.state.nj.us/health>.

For more information, visit <http://www.cdc.gov/travel>.

Multischool Outbreak of Cough Illness Caused by *Bordetella Pertussis*—New Jersey, 2003

By: Antonia Farrel, Janice Skaling, Dr. Robert Morgan, Dr. Eddy Bresnitz—NJDHSS Communicable Disease Service, Sharon Clugston, Hamilton Twp. Division of Health and Dr. Corwin Robertson, Epidemic Intelligence Service Officer

Pertussis is a vaccine-preventable disease disproportionately affecting infants, who are at increased risk for disease-related complications and death. Adolescents and adults are important reservoirs for *Bordetella pertussis*. As of January 10, 2003, the Hamilton Township Division of Health (HTDH) had received approximately 20 reports of suspected pertussis involving school-aged children, prompting an investigation to characterize the extent of this suspected outbreak and implement control measures.

A clinical case was defined as ≥ 2 weeks of cough, occurring from October 1, 2002 to February 28, 2003, in a resident of Hamilton Township. Cases were classified as confirmed or probable based on the CDC case definition. To capture additional cases, letters were sent to parents and health-care providers in the community. School nurses were also encouraged to report students meeting the case definition.

As of March 3, 2003, 67 cases of pertussis (2 confirmed, 65 probable) involving 14 schools have been identified (range: 1–17 cases per school). Two peaks of illness onset were observed: during the weeks ending November 30, 2002 and January 18, 2003. The median age of patients was 11 years (range: 5–64 years), with the majority (64%) aged 10–19 years. The male-to-female ratio was approximately 1:1. Paroxysmal cough and inspiratory whoop were present in 73% and 27% of patients, respectively. Two patients had radiologically confirmed pneumonia; one was hospitalized. Of the 63 patients for whom vaccination status was known, 60 (95%) received ≥ 3 doses of pertussis vaccine.

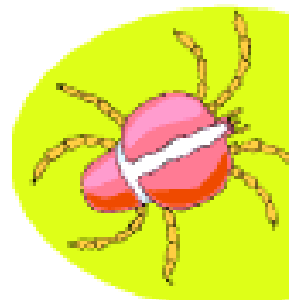


Illness caused by *B. pertussis* can occur even within a highly vaccinated population. Pertussis should be included in the differential diagnosis of any person with protracted cough illness regardless of vaccination status.

Endemic Babesiosis in Another Eastern State: New Jersey

Congratulations to Dr. Michal P. Gerwel, Senior Public Health Physician, for the recent publication of his article entitled “Endemic Babesiosis in Another Eastern State: New Jersey” appearing in the February, 2003 issue of *Emerging Infectious Diseases*. This article highlights the fact that New Jersey is one of the eastern states in which babesiosis is endemic. This finding is not considered to be surprising, given that Lyme disease is highly endemic in New Jersey and given the geographic proximity of New Jersey to areas in the northeast where babesiosis is highly endemic.

Full text of the article can be viewed on the CDC website at www.cdc.gov/ncidod/EID/vol9no2/contents_v9n2.htm.



Our Mission

The mission of the Division of Epidemiology, Environmental and Occupational Health is to protect the citizens of the State and the visiting public from hazards found in the environment, home, and workplace through appropriate surveillance, intervention, education, and outreach.

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The NJDHSS Communicable Disease Service Includes:

- Infectious & Zoonotic Disease Program
- Vaccine Preventable Disease Program
- Sexually Transmitted Disease Program
- Tuberculosis Program

NJDHSS Welcomes New Employees!!

Marlene Bednarczyk-CDRS Project Manager, Office of the Communicable Disease Director

Frank Coviello-Administrative Analyst, Infectious and Zoonotic Disease Program

Donna Mansilla-Management Assistant, Infectious and Zoonotic Disease Program

Lisa McHugh, MPH—Lyme Disease Coordinator, Infectious and Zoonotic Disease Program

Kelly Miller—Clerk, Infectious and Zoonotic Disease Program

Laura Taylor, MS, CHES-Health Educator, Infectious and Zoonotic Disease Program

Obiora Eze, MD— Influenza Surveillance Coordinator, Immunization Program.

Sandra Francis—Public Health Representative 2 (CD), STD Program

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2. Close case management and tracking of vaccine doses by the local health department staff to ensure the infant receives hepatitis B vaccine in a timely manner and all household and sexual contacts are protected. Case management involves counseling the pregnant woman about her disease; tracking hepatitis B vaccine doses given to exposed newborns and neonates to ensure they are given on time and post-vaccination serologic testing is performed; and identifying, screening and vaccinating the susceptible household and sexual contacts of the index case. The information obtained needs to be reported to the NJDHSS at least monthly. NJDHSS staff will then determine progress on the case and assist with any difficulties the local health department may have with tracking and case management.

Preventing perinatal transmission of HBV is an important aspect of strategies to prevent HBV related disease. Maintaining high screening rates among pregnant women for HBsAg and providing immunoprophylaxis for their infants, household and sexual contacts will help prevent chronic liver disease in New Jersey.

To receive free hepatitis B brochures and other patient education materials, available in numerous languages, or for more information contact the Perinatal Hepatitis B Program at (609) 588-7512. Hospitals should report information on a newborn of a HBsAg (+) mother at: 800-792-8831.